In the Claims

Kindly amend the claims, without prejudice, as follows:

1. (Currently Amended) An isolated ester-group-cleaving enzyme obtained by culturing the microorganism *Thermomonospora fusca* in a suitable nutrient medium, in the presence of an inducer, wherein the ezyme

(i) cleaves ester groups of macromolecular compounds,

(ii) is water soluble, and

(iii) has a molecular weight of 27,400 Daltons to 28,200 Daltons.

2. (Previously Presented) The isolated ester -group-cleaving enzyme according to claim 1, wherein the microorganism is a *Thermomonospora fusca* strain that has been deposited with the Deutschen Sammlung für Mikroorganismen (German Collection of Microorganisms) under the number DSM 43793.

3. (Previously Presented) The isolated ester -group-cleaving enzyme according to claim 1, wherein the enzyme is isolated from the nutrient medium by obtaining an enzyme-containing culture supernatant from the nutrient medium, and

purifying the enzyme by chromatography.

4. (Previously Presented) The isolated ester -group-cleaving enzyme according to claim 1, wherein the enzyme has a-molecular weight of 27400 d to 28200 d,

an optimum temperature of 65°C , a functional temperature range of 30-80°C, temperature stability of 70°C/30 min, an optimum pH of 6-7 a functional pH range of 4->8, and an isoelectric point of 6.4.

5. (Currently amended) The isolated ester -group-cleaving enzyme according to claim 1, wherein the enzyme has the amino acid sequence of SEQ ID NO: 1~~or wherein the enzyme is a mutant or derivative of SEQ ID NO: 1 resulting from substitution of amino acids of SEQ ID NO: 1, insertion of amino acids into SEQ ID NO: 1 or deletion of amino acids from SEQ ID NO: 1, and wherein said mutant or derivative has ester-group-cleaving enzyme activity~~.

6. (Currently amended) A synthetic peptide or protein comprising the amino acid sequence of the ester-group-cleaving enzyme according to claim 5 ~~or a part of the sequence thereof~~.

7. (Previously Presented) A polyclonal antibody directed specifically against an ester-group-cleaving enzyme according to claim 1.

8. (Previously Presented) A monoclonal antibody directed specifically against an ester-group-cleaving enzyme according to claim 1.

9. (Previously Presented) A hybridoma cell that produces a monoclonal antibody according to claim 8.

10. (Previously Presented) An ester-group-cleaving composition that comprises an ester-group-cleaving enzyme according to claim 1 and at least one additional component comprised of additional enzymes, stabilisers, surface-active substances organic solvents.

11. (Previously Presented) The ester-group-cleaving composition according to claim 10, wherein the additional enzymes are selected from the group consisting of hydrolases, esterases, proteases, cutinases, lipases, phospho-lipases and lysophospholipases.

12. (Previously Presented) The ester-group-cleaving composition according to claim 11, wherein the hydrolases are from microorganisms selected from the group consisting of *Pseudomonas* sp., *Rizomucor miehei, Candida cylindracea, Candida antartica, Aspergillus niger, Chromobacterium viscosum, Commamonas acidovorans, Rhizopus arrhizus* and *Rhizopus delama.*

13. (Previously Presented) A method for the degradation of an ester-group-containing macromolecular compound, comprising the steps of:

a) providing an ester-group-containing macromolecular compound;

b) providing an ester-group-cleaving enzyme according to claim 1; and

c) incubating said ester-group-containing macromolecular compound and said ester-group-cleaving enzyme for a suitable time and at a suitable temperature,

such that the ester-group-containing macromolecular compound is degraded.

14. (Previously Presented) The method according to claim 13, wherein the ester-group-containing macromolecular compounds are aliphatic, cycloaliphatic, aliphatic-aromatic, partially aromatic, aromatic polyesters, aromatic copolyesters, polyesteramides, polyestercarbonates or polyester-urethanes.

15. (Previously Presented) The method according to claim 14, wherein the ester-group-containing macromolecular compounds form copolymers, mixtures and blends, composites, laminates or adhesive bonds with other materials.

16. (Previously Presented) A genetically modified microorganism producing, in culture, a protein having the amino acid sequence of SEQ ID NO 1.

17. (Previously Presented) A genetically modified microorganism according to claim 16 wherein the microorganism is a *Thermomonospora fusca* strain.

18. (Previously Presented) The isolated ester-group cleaving enzyme according to claim 3, wherein the culture supernatant is concentrated prior to purifying the enzyme by chromatography.

19. (Previously Presented) The isolated ester group cleaving enzyme according to claim 3, wherein said chromatography method comprises ion exchange chromatography or hydrophobic interaction chromatography.

20. (Previously Presented) A polyclonal antibody directed specifically against an ester-group-cleaving enzyme according to claim 5.

21. (Previously Presented) A polyclonal antibody directed specifically against a synthetic peptide or protein according to claim 6.

22. (Previously Presented) A monoclonal antibody directed specifically against an ester-group-cleaving enzyme according to claim 5.

23. (Previously Presented) A monoclonal antibody directed specifically against a synthetic peptide or protein according to claim 6.

24. (Previously Presented) A hybridoma cell that produces a monoclonal antibody according to claim 22.

25. (Previously Presented) A hybridoma cell that produces a monoclonal antibody according to claim 23.

26. (Previously Presented) An ester-group-cleaving composition that comprises an ester-group-cleaving enzyme according to claim 5 and at least one additional component comprised of additional enzymes, stabilisers, surface-active substances or organic solvents.

27. (Previously Presented) An ester-group-cleaving composition that comprises a synthetic peptide or protein according to claim 6 and at least one additional component comprised of additional enzymes, stabilisers, surface-active substances or organic solvents.

28. (Previously Presented) The ester-group-cleaving composition according to claim 27, wherein the additional enzymes are selected from the group consisting of hydrolases, esterases, proteases, cutinases, lipases, phospho-lipases and lysophospholipases.

29. (Previously Presented) The ester-group-cleaving composition according to claim 28, wherein the additional enzymes are selected from the group consisting of hydrolases, esterases, proteases, cutinases, lipases, phospho-lipases and lysophospholipases.

30. (Previously Presented) A method for the degradation of an ester-group-containing macromolecular compound, comprising the steps of:

a) providing an ester-group-containing macromolecular compound;

b) providing a synthetic peptide or protein according to claim 6; and

c) incubating said ester-group-containing macromolecular compound and said synthetic peptide or protein for a suitable time and at a suitable temperature, such that the ester-group-containing macromolecular compound is degraded.

31. (Previously Presented) The method according to claim 30, wherein the ester-group-containing macromolecular compounds are aliphatic, cycloaliphatic, aliphatic-aromatic, partially aromatic, aromatic polyesters, aromatic copolyesters, polyesteramides, polyestercarbonates or polyester-urethanes.

32. (Previously Presented) The method according to claim 31, wherein the ester-group-containing macromolecular compounds form copolymers, mixtures an blends, composites, laminates or adhesive bonds with other materials.